

REMARKS

At the outset, the Applicant appreciates the thorough review and consideration of the subject application. The Non-Final Office Action of January 28, 2004, has been received and its contents carefully noted. Claims 1-18 are currently pending. By this amendment, claims 2, 4, 5, 8, and 12-16 are amended. Support for these amendments are provided in at least Figures 1-6 and related text of the specification. No new matter has been added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Allowable Subject Matter

Applicant appreciates the indication that claim 3, 9, and 10 contain allowable subject matter. More specifically, the indication that claim 3 would be allowable if rewritten into independent form including all of the limitations of the base claim and any intervening claims. Also, the indication that claims 9 and 10 would be allowable if written to overcome the rejections under 35 U.S.C. § 112, second paragraph.

Claim Objections

In the Office Action, claim 2-4, 8-10, and 12-15 were objected to as containing informalities.

Claims 2, 4, 8, and 12-15 have been amended for the sole purpose of clarifying the subject matter that Applicant regards as their invention. This amendment is not made for the purpose of avoiding prior art or narrowing the claimed invention, and no change in claim scope

is intended. Therefore, Applicant does not intend to relinquish any subject matter by these amendments. Applicant respectfully submits that claim 2, 4, 8, and 12-15, as amended, overcomes the stated objections.

The Examiner objected to claims 3, 9, and 10 for containing informalities. For example, with regard to claims 3 and 9, the Examiner asserts "incorrect terms operation nTFT and still TFT without specific definition ... and numerous syntax errors ... is/are throughout claim 3." (See Office Action at 2.) Applicant respectfully traverse the objections for at least the following reasons.

Applicant notes there is no requirement that a term be given a specific definition. Moreover, one of ordinary skill in the art could readily understand the scope of the claims from the specification and/or figures. That is, a nTFT and pTFT are well understood in the art as being n-type TFT and a p-type TFT. Also, for example and for illustration purposes only, the Examiner is directed towards p. 10, l. 22 to p. 11, l. 6 of the specification disclosing the following:

As the second control signal transmitted via the second control signal line 23 periodically repeats the high state and the low state according to the characteristics of the LCD panel, the still pTFT P3 and the operation nTFT N2 periodically repeat on/off states according to the characteristics of the LCD panel, and then transmits either the still mode image signals transmitted to the third electrode 140 of the pixel switch N1 or corresponding inverting signals from the drain electrodes 111 generated by the first inverter circuit P1 and N5 to the liquid crystal unit 200.

From at the least the foregoing and other portions of the specification, one of ordinary skill in the art would be able to ascertain the metes and bounds of the objected terms. Moreover, the Examiner alleges there are numerous syntax errors throughout the claim. Applicant respectfully

disagrees and respectfully requests clarification of the objection as the use of verb is and are appear to be used correctly in the recited claims.

Accordingly, Applicant respectfully requests the objections be withdrawn.

Rejections Under 35 U.S.C. § 112, second paragraph

Claims 5-11, 14-15, and 18 stand rejected under 35 U.S.C. § 112, second paragraph as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as their invention. Applicant respectfully traverses this rejection for at least the following reasons.

The Examiner asserts claim 5 is indefinite because "selectively transmitting according to difference between the image signals and third power ... is unclear as to what is being transmitted." (Office Action at 3.) Applicant respectfully submit that claim 5 as amended is in full compliance with 35 U.S.C. § 112, second paragraph.

Also, the Examiner asserts claim 18 is indefinite as lacking antecedent basis for "the scanning signal." (Office Action at 3.) Applicant respectfully submits that claim 18 has proper antecedent basis. The Examiner is respectfully directed towards line 2 of claim 18 reciting "a scan driver activated to supply scanning signals" providing antecedent support for the scanning signals.

Applicant respectfully submits that amended claims 5 and 18 are in full compliance of 35 U.S.C. § 112, second paragraph.

Rejections Under 35 U.S.C. § 102

Claims 16-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,977,940 issued to Akiyama, *et al.* ("Akiyama"). Applicant respectfully traverses this rejection for at least the following reasons.

Claim 16 is allowable over the cited reference in that claim 16 recites a combination of elements including, for example,

a level shift unit in electrical communication with the second control signal for generating an inverting signal and increasing a voltage.

Akiyama does not teach or suggest at least these features.

Accordingly, Applicant respectfully submits that claim 16 and claim 17, which depends from claim 16, are allowable.

Claim 18 is allowable over the cited reference in that claim 18 recites a combination of elements including, for example,

a plurality of pixels, each pixel including a liquid crystal capacitor displaying an image, a pixel switch for transmitting the image signals in response to the scanning signal, and a memory cell storing and transmitting the image signal from the pixel switch to the liquid crystal capacitor during the first period and providing at least one of the stored image signal and an inversion signal to the stored image signal for the liquid crystal capacitor during the second period.

Akiyama does not teach or suggest at least these features.

More specifically, Akiyama does not teach a source and scan driver being inactivated for a second period and providing at least one of the stored image signal and an inversion signal to

the stored image signal for the liquid crystal capacitor during the second period as required by claim 18. Also, Akiyama does not expressly teach "a memory cell storing and transmitting the image signal from the pixel switch to the liquid crystal capacitor during the first period" as required by claim 18.

Accordingly, Applicant respectfully submits that claim 18 is allowable.

Rejections Under 35 U.S.C. § 103

Claims 1, 2, 4-8, and 11-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Akiyama. Applicant respectfully traverses this rejection for at least the following reasons.

Claim 1 is allowable over the cited reference in that claim 1 recites a combination of elements including, for example,

a memory cell unit for receiving the first control signal and
the second control signal from the control signal line unit.

Akiyama does not teach or suggest at least these features.

The Examiner admits Akiyama is materially deficient as a reference by stating the reference fails to teach "a memory cell unit for receiving the first control signal and the second control signal from the control signal line unit." (Office Action at 6.) Apparently, the Examiner is relying on official notice as no other reference is provided for the Examiner's assertion these features are obvious. The Examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art. *See In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). As set forth in MPEP § 2144.03, if an Applicant traverses an assertion made by an Examiner while taking official notice,

the Examiner should cite a reference in support of their assertion. Accordingly, Applicant respectfully requests the Examiner to provide a reference to support the use of official notice.

Accordingly, Applicant respectfully submits that claim 1 and claims 2 and 4, which depend from claim 1 are allowable.

Claim 5 is allowable over the cited reference in that claim 5 recites a combination of elements including, for example,

a level shift unit for receiving the second control signal,
lifting the high state by as much as the second power, generating
an inverting signal, and outputting the inverting signal.

Akiyama does not teach or suggest at least these features.

The Examiner admits Akiyama is materially deficient as a reference by stating the reference "a power unit for supplying a first power, a second power and a third power to all pixels from outside of a pixel area of the LCD panel." (Office Action at 8.) Apparently, the Examiner is relying on official notice as no other reference is provided for the Examiner's assertion that these features are obvious. The Examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art. *See In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). As set forth in MPEP § 2144.03, if an Applicant traverses an assertion made by an Examiner while taking official notice, the Examiner should cite a reference in support of their assertion. Accordingly, Applicant respectfully request the Examiner to provide a reference to support the use of official notice.

Accordingly, Applicant respectfully submits that claim 5 and claims 6-8, 11, 14, and 15, which depends from claim 12, are allowable.

Claim 12 is allowable over the cited reference in that claim 12 recites a combination of elements including, for example,

transmitting either a still mode image signal output by a third electrode of the pixel switch or its inverting signal to the liquid crystal as the second control signal periodically repeats low and high states to fit characteristics of an LCD panel when the first control signal is in high state.

Akiyama does not teach or suggest at least these features.

The Examiner admits Akiyama is materially deficient as a reference by stating the reference "fails to expressly teach when the first control signal is in low stand and the second control signal is in high state. One skilled in the art would know how to selectively control a member cell in order to read/write." (Office Action at 10.) Apparently, the Examiner is relying on official notice as no other reference is provided for the Examiner's assertion that these features are obvious. The Examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being "well-known" in the art. *See In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). As set forth in MPEP § 2144.03, if an Applicant traverses an assertion made by an Examiner while taking official notice, the Examiner should cite a reference in support of their assertion. Accordingly, Applicant respectfully request the Examiner to provide a reference to support the use of official notice.

Accordingly, Applicant respectfully submits that claim 12 and claim 13, which depends from claim 12, are allowable.

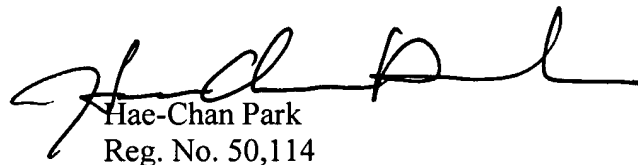
Conclusion

Applicant believes that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,



Hae-Chan Park
Reg. No. 50,114

Date: April 28, 2004

McGuireWoods LLP
1750 Tysons Boulevard
Suite 1800
McLean, VA 22102-4215
Tel: 703-712-5365
Fax: 703-712-5280
HCP/SJH/bjb